FOLIA MICROBIOLOGICA

Vol. XXI - 1976

ACADEMIA SCIENTIARUM BOHEMOSLOVACA

CONTENTS

Abou-Zeid A. A., Yousef A. A.: Effect of Sodium Arsenite on the Biosynthesis of Mitomycins by *Streptomyces caespitosus* and Mode of Action of Mitomycin C on *Bacillus subtilis* NRRL B-543 36
Adámek L. see Šestáková M. 444
Arnaud A., Galzy P., Jallageas J. C.: Amidase Activity of Some Bacteria 178
Banik A. K.: Mineral Nutrition of *Aspergillus niger* for Citric Acid Production 139
Balgavý P., Rauko P.: Elimination of Lethal and Pre-mutational DNA Lesions during the Photoreactivation of UV-irradiated *Escherichia coli* 1
Balgavý P., Rauko P.: Role of Post-replication and Excision Repair Mechanism in the Induction of Trp$^+$ Revertants of UV-irradiated *Escherichia coli* 90
Balgavý P., Rauko P., Turek R.: The Broth Effect and Mutation Frequency Decline in Cells of *Escherichia coli* after Irradiation with UV-light 342
Baráth Z. see Betina V. 274
Baráthová H., Betina V.: Antibiotic-induced Changes of Mycelial Growth of *Botrytis cinerea* 355
Bártek J. see Hejtmánek M. 297
Basak K., Majumdar S. K.: Effect of Some Inhibitors on Kanamycin Formation by *Streptomyces kanamyceticus* 43
Bauer Š. see Farkaš V. 459
Betina V., Hudec J., Baráth Z., Ulický L.: Colonial Growth and Ramihyphin A — Induced Changes in Cell Walls of *N. sitophila* 274
Betina V. see Baráthová H. 355
Betina V., Spišiaková J.: Suppression of Photo-induced Sporulation in *Trichoderma viride* by Inhibitors 362
Bezděk M., Reich J., Tkadleček L.: Properties of the Cured Oncogenic Strain 37400 of *Agrobacterium tumefaciens* 371
Bezděk M. see Kubíčková D. 378
Blumauerová M. see Cudlín J. 54
Blumauerová M., Lipavská H., Stajner K., Vaněk Z.: The Study of Variability and Strain Selection in *Streptomyces atroolivaceus*. III. Isolation and Preliminary Characteristics of Mutants Impaired in the Biosynthesis of Mithramycin 285
Bobyk M. A. see Hoštálek Z. 131
Budayová E. see Rauko P. 438
Bulant V. see Kybal J. 477
Cudlín J., Blumauerová M., Steinerová N., Matějů J., Zalabák V.: Biological Activity of Hydroxyanthraquinones and Their Glucosides toward Microorganisms 54
Čáslavská J., Pavlasová E., Stejskalová E.: Morphological Changes in *Escherichia coli* and *Bacillus cereus* Caused by External Histone 301
Čatská V., Vraný J.: Rhizosphere Mycoflora of Wheat after Foliar Application of Chlorocholine Chloride, Urea and 4-Chloro-2-methylphenoxyacetic Acid 268
Čurdová E., Křemen A., Vaněk Z., Hoštálek Z.: Regulation of Biosynthesis of Secondary Metabolites. XVIII. Adenylate Level and Chlorotetracycline Production in *Streptomyces aureofaciens*. 481
Diab M. A., Podojil M., Wurst M., Prokeš B.: Content of Fatty Acids of *Chlorella kessleri* in a Deep Tank Fermentation 294
Doberský P. see Pilát P. 391
Doležal J., Kaprálek F.: Physiological Characteristics of Chemostatically Grown *Citrobacter freundii* as a Function of the Specific Growth Rate and Type of Nutrient Limination 168
Farbakyová G. see Strýčková T. 21
Farkaš V., Bauer Š.: Biosynthesis of Yeast Mannan. Characterization of Mannan-synthesizing Enzyme Systems from Mutants Defective in Mannan Structure 459
Fuchsová J. see Tichý P. 100
Galzy P. see Arnaud A. 178
Hejtmánek M., Bártek J.: Mutants of *Emmonsia crescens* — Their Pathogenicity and Size of Adiaspores In Vivo 297
Herrera L. see Piedra D. 337
Hochmannová J., Ludvík J.: Biochemical Characterization and Visualization of Plasma Membrane—DNA—Protein Complexes from Bacillus subtilis 117
Holan Z. see Kocková-Kratochvílová A. 83
Horák J., Říhová L., Kotyk A.: Loss of Inducible D-Galactose Transport by Baker's Yeast after Osmotic Treatment 125
Hoštálek Z., Tobek I., Bobyk M. A., Kulayev I. S.: Role of ATP-Glucokinase and Polyphosphate Glucokinase in *Streptomaces aureofaciens* 131
Hoštálek Z. see Čurdová E. 481
Hudec J. see Betina V. 274
Chaloupka J., Strnadová M., Vereš K., Zalabák V.: The Effect of Substitution of Diaminopimelic Acid by 4-Hydroxy-diaminopimelic Acid on the Synthesis and Degradation of Murein in *Escherichia coli* 173-25 161
Chaloupka J. see Kaška M. 465
Chaudra A. L. see Roy M. K. 50
Jallageas J. C. see Arnaud A. 178
Kaprálek F. see Doležal J. 168
Karácsonyi Š. see Kubačková M. 28
Karpfel Z. see Kubíčková D. 378

Kaška M., Lysenko O., Chaloupka J.: Exocellular Proteases of *Serratia marcescens* and their Toxicity to Larvae of *Galleria mellonella* . . . 465
Kleinerová E. see Kybal J. . . . 474
Kocková-Kratochvílová A., Holan Z.: Cytological and Chemical Changes in Cell Walls of *Rhodotorula gracilis*. III. Characteristics of Life Cycle of the Yeast . . . 83
Koníček J. see Koníčková-Radochová M. . . . 10
Koníčková-Radochová M., Koníček J.: Mapping of the Chromosome of *Mycobacterium phlei* by Means of Mutagenesis of the Replication Point . . . 10
Kotyk A. see Horák J. . . . 125
Koukalová B.: Death of *Lactobacillus acidophilus* Caused by Incorporation of ^{3}H-Thymine during Incubation without Amino Acids . . . 107
Křemen A. see Čurdová E. . . . 481
Kubačková M., Karácsonyi Š., Toman R.: Purification of Xylanase from the Wood-Rotting Fungus *Trametes hirsuta* . . . 28
Kubíčková D., Karpfel Z., Bezděk M.: Isolation and Complementation Analysis of Temperature-sensitive Mutants of the PS8 Bacteriophage of *Agrobacterium tumefaciens* . . . 378
Kulayev I. S. see Hošťálek Z. . . . 131
Kunc F., Lokhmacheva A., Macura J.: Biological Decomposition of Fulvic Acid Preparations . . . 257
Kybal J., Kleinerová E., Bulant V.: Ergot Alkaloids VI. Nitrogen Metabolism during the Development of Sclerotium of *Claviceps purpurea* . . . 474
Lipavská H. see Blumauerová M. . . . 285
Lokhmacheva A. see Kunc F. . . . 257
Ludvík J. see Hochmannová J. . . . 117
Lysenko O. see Kaška M. . . . 465
Macura J. see Kunc F. . . . 257
Majumdar S. K. see Basak K. . . . 43
Matějů J. see Cudlín J. . . . 54
Míčková R., Protiva J., Schwarz V.: Steroid Derivatives. LXXIX. Microbial 15β-Hydroxylation of 17α-Acetoxy-16-Methylene Derivatives of the Pregnane Series by the Action of *Cunninghamella blakesleeana* . . . 144
Musílek V. see Nerud F. . . . 488
Nerud F., Musílek V.: Composition of Lipids and Production of Mucidin in a Submerged Culture of the Basidiomycete *Oudemansiella mucida* . . . 488
Páca J.: Oxygen Transfer Rate, Respiration and Yields in Batch and Chemostat Cultures of *Klebsiella aerogenes* . . . 417
Pavlasová E. see Čáslavská J. . . . 301
Pavlasová E., Stejskalová E., Sikyta B.: Simultaneous and Gradual Induction of β-Galactosidase and Tryptophanase Synthesis in an *Escherichia coli* Batch Culture . . . 431
Piedra D., Herrera L.: Selection of Auxotrophic Mutants in *Saccharomyces cerevisiae* by a Snail Enzyme Digestion Method . . . 337
Pilát P., Prokop A.: Oxidation of Methanol, Formaldehyde and Formic Acid by Methanol Utilizing Yeast . . . 306
Pilát P., Votruba J., Doberský P., Prokop A.: Application of Mathematical Optimalization Methods in Microbiology . . . 391
Podojil M. see Diab M. A. . . . 294
Prokeš B. see Diab M. A. . . . 294
Prokop A., Votruba J.: Bioengineering Problems Connected with the Use of Conventional and Unconventional Raw Materials in Fermentation . . . 58
Prokop A. see Pilát P. . . . 306
Prokop A. see Pilát P. . . . 391
Protiva J. see Míčková R. . . . 144
Rauko P. see Balgavý P. . . . 1
Rauko P. see Balgavý P. . . . 90
Rauko P. see Balgavý P. . . . 342
Rauko P., Budayová E., Sedliaková M.: Thymineless Death in a Thymine-dependent Mutant of *Micrococcus radiodurans* T_2^- in the Presence of Chloramphenicol and Rifampicin . . . 438
Reich J. see Bezděk M. . . . 371
Roy M. K., Chandra A. L.: A New Pigmented Antibiotic from a Soil Streptomycete . . . 50
Rytíř V. see Tichý P. . . . 100
Říhová L. see Horák J. . . . 125
Sedliaková M. see Rauko P. . . . 438
Schwarz V. see Míčková R. . . . 144
Sikyta B. see Pavlasová E. . . . 431
Sobotková E. see Tichý P. . . . 100
Spišiaková J. see Betina V. . . . 362
Stajner K. see Blumauerová M. . . . 285
Steinerová N. see Cudlín J. . . . 54
Stejskalová E. see Čáslavská J. . . . 301
Stejskalová E. see Pavlasová E. . . . 431
Strnadová K.: A Method of Preparation and Application of Nitrous Acid as a Mutagen in *Claviceps purpurea* . . . 455
Strnadová M. see Chaloupka J. . . . 161

Strýčková T., Farbakyová G.: Characteristics of Lipopolysaccharides of *Salmonella typhi* Isolated from Carriers and Patients Suffering from Typhoid Fever . . . 21
Šestáková M.: Assimilation Spectrum of the Yeast *Candida utilis* 49 Used for Producing Fodder Yeast from Synthetic Ethanol . . . 384
Šestáková M., Adámek L., Štros F.: Effect of Crotonaldehyde on the Metabolism of *Candida utilis* during the Production of Single Cell Protein from Ethanol . . . 444
Štros F. see Šestáková M. . . . 444
Tichý P., Rytíř V., Sobotková E., Fuchsová Z.: D-Glucosamine as Inhibitor of Early Processes of Transformation in *Bacillus subtilis* 168 Trp_2 . . . 100
Tkadleček L. see Bezděk M. . . . 371
Tobek I. see Hoštálek Z. . . . 131
Toman R. see Kubačková M. . . . 28
Turek R. see Balgavý P. . . . 342
Ulický L. see Betina V. . . . 274
Vaněk Z. see Blumauerová M. . . . 285
Vaněk Z. see Čurdová E. . . . 481
Vereš K. see Chaloupka J. . . . 161
Votruba J. see Prokop A. . . . 58
Votruba J. see Pilát P. . . . 391
Vraný J. see Čatská V. . . . 268
Wurst M. see Diab M. A. . . . 294
Yousef A. A. see Abou-Zeid A. A. . . . 36
Zalabák V. see Cudlín J. . . . 54
Zalabák V. see Chaloupka J. . . . 161

Brief Reports

Balan J. see Križková L. . . . 493
Baten A. see Hannan M. A. . . . 409
Brůna L. see Čapek A. . . . 155
Buděšínský Z. see Čapek A. . . . 152
Čapek A., Fassatiová O., Hanč O.: Steroid Transformations as a Biochemical Feature of the Genus *Paecilomyces* . . . 70
Čapek A., Šváb A., Buděšínský Z.: Antimicrobial Agents. XXV. Antifungal Activity of 2-Aminobenzthiazol Derivatives . . . 152
Čapek A., Brůna L.: Antimicrobial Agents. XXVI. Antifungal Activity of 2-Methylthio-5-(3-iodopropargyloxy)pyrimidine toward Pathogenic Yeast-like Microorganisms . . . 155
Čapek A., Leiner J.: Antimicrobial Agents. XXVII. Antifungal Activity of Substituted Phenols and their Addition Salts with 2-Aminotridecane toward Dermatophytes . . . 157
Čapek A., Němcová D., Janata V.: Antimicrobial Agents. XXIX. Fungicidal Effect of α-Aminolaurophenone Derivatives . . . 495
Čižmárik J. see Mlynarčík D. . . . 75
Fassatiová O. see Čapek A. . . . 70
Foo E. L., Varma A. K.: Inhibitory Effect of *Streptomyces antibioticus* and O her Microorganisms on *Rhizobium* . . . 315
Hanč O. see Čapek A. . . . 70
Hannan M. A., Sarwar M. G., Baten A., Chaudhury N.: Stepwise Mutational Improvement of *Aspergillus niger* for Citric Acid Productivity in Cane Molasses . . . 409
Hussain S. S., Chander H., Ranganathan B.: Activation of Lipolytic Activity of *Streptococcus faecalis* by Nitrosoguanidine . . . 7
Chander H. see Hussain S. S. . . . 73
Chaudhury N. see Hannan M. A. . . . 409
Janata V. see Čapek A. . . . 495
Kolozsváry A. see Križková L. . . . 493
Kopecká M.: The Use of the Antibiotic Lomofungin for Demonstration of Nuclei and Chromosomes in Live Yeast Cells and Protoplasts . . . 406
Križková L., Balan J., Nemec P., Kolozsváry A.: Predacious Fungi *Dactylaria pyriformis* and *Dactylaria thaumasia:* Production of Attractants and Nematicides . . . 493
Leiner J. see Čapek A. . . . 157
Mlynarčík D., Čižmárik J.: Antimicrobial Efficiency of ω-Piperidinoethyl Esters of n-Alkoxyphenylcarbamic Acids . . . 75
Nemec P. see Križková L. . . . 493
Němcová D. see Čapek A. . . . 495
Ranganathan B. see Hussain S. S. . . . 73
Sarwar M. G. see Hannan M. A. . . . 409
Šváb A. see Čapek A. . . . 152
Varma A. K. see Foo E. L. . . . 315
International Symposium on Vibrionaceae and other Agents of Enterotoxicoses . . . 320
International Symposium on Rickettsiae and Rickettsial Diseases . . . 497
Twelfth Annual Meeting of the Czechoslovak Society for Microbiology . . . 185
Suggestions to Authors . . . 413
† Dr. Miroslav Šrogl, CSc. 1935—1976 . . . 81
Book Reviews . . . 77, 160, 332, 512